further view of McHahan (U.S. Patent No. 5,845,165). Claims 8-11 and 13 stand rejected as obvious over the base combination in further view of Fielder (U.S. Patent No. 5,845,240). Claims 12, 15 and 31-35 stand rejected as obvious over the base combination in further view of Scerbo (U.S. Patent No. 5,546,124). Claim 14 stands rejected as obvious over the base combination in further view of Fielder and Scerbo. Claim 23 stands rejected as obvious over the base combination in further view of McHahan and Fielder. Claims 29-30 stand rejected as obvious over the base combination in further view of Scerbo and Hashimoto (U.S. Patent No. 5,815,205). The rejections are respectfully traversed.

The Examiner reiterates the arguments presented in the Official Action dated September 15, 1999, in support of the rejection. As understood, the Examiner argues that Chang teaches preserving, within a semiconductor memory, video image data generally surrounding a target both before and after a triggering event, and points to column 2, lines 16-31 and column 11, lines 5-22 of Chang for support.

As discussed in the referenced text in column 2, the IR camera 30 images the golf club head and ball. The IR camera is not a video camera but rather a photograph camera (see column 2, lines 21-24). As discussed in column 11, contact between the club head and the ball is the triggering event which is determined via a club speed computation in order to capture images of the golfer's swing just before and just after the club head strikes the ball (see also column 2, lines 15-30). The IR camera 30 is also used to image the placing of a golf ball on the tee as a separate event. The detection of this event activates the processing and storage of images of the golfer imaged by the video cameras 24, 26 and 28.

Accordingly, Chang teaches preserving within the semiconductor memory snapshots (not video images) of an area surrounding an event target (not a target line) just prior to and just after the event. More particularly, Chang discloses using a camera 30 to record snapshot images of an area associated with the event target. That is, the IR camera 30 at best is used to sense an event and record a snapshot of an area around the event target.

Therefore, Chang might suggest the use of a photograph camera (such as IR camera 30), to detect the placement of a finger on a weapon trigger and to process and store snapshot images of an area surrounding the weapon trigger taken by the camera just prior to and just after the activation of the trigger to discharge the weapon.

However, Chang lacks any suggestion of recording video image data corresponding generally to an area surrounding a target line as recited in claim 1. The Examiner appears to acknowledge this in the first four lines on page three of the Official Action dated September 15, 1999.

As further understood, the Examiner proposes to modify Chang by combining Chang's IR camera 30 and associated processing and storage devices with Black's rifle and camera assembly as shown in Figure 1 and described in column 4, lines 10-21. However, this combination does not cure the defects in Chang.

More particularly, the Examiner proposes to use the IR camera 30 and associated processing and storage devices in combination with Black's gun and camera assembly to detect the event (i.e. the moment in time that Black's user desires to shoot at the target) and based upon the detection of this event to activate Black's target line video camera recorder 12.

However, Black's target line recorder 12 is taught to only record video image data after the discharge of the weapon.

Hence, the proposed combination would still lack any suggestion that video image data corresponding generally to an area surrounding a target line be recorded both before and after the weapon discharge, as required by independent claim 1. The applied art also lacks the required preserving, within the video recording device, video image data corresponding generally to an area surrounding a target line and corresponding to at least some of the stored video image data associated with the area preceding and subsequent to the firing of the weapon, as recited in claim 1.

Also, as should be clear from the above discussion, lacking from the proposed combination of art is a data recording device for preserving video image data representing a video image corresponding to an area generally surrounding the target line of a weapon, and which has a controller operative to cause the storage of data representing the video image data within a semiconductor memory both before and after generation of a weapon discharge signal and selectively preserves stored data as recited in independent claim 16.

Furthermore, independent claim 36 recites a memory for storing at least one of audio and video data such that later stored data is recorded over previously stored data and a controller configured to transfer the data stored in the memory to a non-volatile memory based upon the detection of the occurrence. It is respectfully submitted that the applied art lacks any teaching or suggestion whatsoever of such a controller. Accordingly, it is respectfully submitted that claim 36 also patentably distinguishes over the applied art taken individually or in any combination.

Other features recited in the dependent claims are believed to further and independently distinguish over the applied art references.

For example, claim 6 requires that in response to each one of multiple discharge sensor output signals video image data corresponding to at least one frame before and one frame after the applicable signal be preserved. The Examiner relies on Chang's teachings in column 7, lines 27-46, and column 10, line 51, through column 11, line 22, as disclosing this feature.

However the referenced text relates to only a single event occurrence, not to each one of multiple occurrences and hence each of multiple discharge sensor output signals. As can best be understood, Chang lacks any capability of preserving video image data relating to multiple events in the described circular buffer.

Claim 8 requires that the video image data associated with each discharge of the weapon be stored in a portion of the memory assigned for that discharge and preserving selected video image data associated with each such discharge. The Examiner relies on Fielder as disclosing such a feature. More particularly, the Examiner points to the disclosure in column 4, lines 21-49 and Figure 2 in support of the rejection.

However, the referenced text simply discloses multiple circular buffers in which data can be stored sequentially such that when a first buffer is full, data is stored in a second buffer. Fielder makes no suggestion of an association between the respective circular buffers and respective events. Accordingly, the proposed combination of Chang, Black and Fielder would result in multiple sequential buffers in which data would be stored in one buffer until that buffer was full before proceeding to store data in a further buffer. Also

lacking from the proposed combination is any suggestion in the applied art that smaller portions of memory are associated with later discharges as required by claim 9.

With respect to claims 10 and 11, the Examiner contends that Fielder's disclosure in column 4, lines 34-39, and column 5, line 63, through column 6, line 9, makes obvious the combined audio and video recording as recited in claim 10.

It is first respectfully submitted that there is nothing in the proposed combination to suggest combined audio and video recording temporally around the discharge of a weapon. Further, the referenced text lacks any suggestion that the digital data is stored in a semiconductor memory employing a non-linear quantization technique. The Examiner contends that the use of such a technique to store such data is inherent, but provides no rationale whatsoever supporting this conclusion. Hence, one can only ask why one would inherently use such a technique.

Claim 13 requires that the stored video image data be read from a first semiconductor memory and written to a second non-volatile semiconductor memory. The Examiner points to column 5, line 63, through column 6, line 8, of Fielder as teaching such a second semiconductor memory. The Examiner further takes official notice that Fielder's memory could be non-volatile and that it would be obvious to make Fielder's memory non-volatile in order to preserve the date in the event of a lack of power.

First, the Examiner's contention that Fielder's memory could be made non-volatile is purely speculative. There is nothing whatsoever to suggest that Fielder's could be, let alone should beneficially be, made non-volatile. Rather, as discussed in column 4, lines 50-54, the acquisition buffer records are only stored temporarily for recording playback and transfer to permanent storage. Hence, Fielder at best suggests there is no

need to make the acquisition buffers non-volatile. Once again, if the rejection is to be maintained, the Examiner is requested to provide support for the official notice.

Limitations recited in claims 23 and 25-28 also include features which patentably distinguish over the applied art for reasons which should be clear from the above.

Claims 29 and 30 require that the controller include a bi-directional communications interface and be operative, in response to receipt of a read command having a specified password, to transmit the preserved digital data. The Examiner relies on Scerbo for disclosing such a controller, particularly pointing to column 6, lines 35-44.

However, the referenced text relates to intermediate alternate code-locking and unlocking of the recording substrate to allow the substrate to be inserted and removed from the space, and clearly lacks any teaching of a controller which requires a read command having a specified password before transmitting preserved data from the memory.

Claims 33-44 require a magnetically actuable switch. The Examiner relies on Scerbo as disclosing a switch. While recognizing that Scerbo lacks any teaching or suggestion of a magnetic switch as required by the applicable claims, the Examiner contends that it would be obvious to substitute a magnetic switch for Scerbo's mechanical switch to "increase the reliability of the sensor by eliminating troublesome mechanical switching contacts".

However, there is no suggestion within Scerbo that a magnetic rather than mechanical switch could be, let alone should advantageously be, used. Once again can only ask why Scerbo's disclosed mechanical switching contacts would be considered troublesome and, even if such contacts were

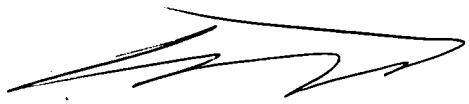
considered troublesome, why the use of a magnetically actuable switch in Scerbo's holster arrangement would provide greater reliability.

Claim 39 is also further patentably distinguishable over the applied art in any combination as should be understood from the above discussion.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed local telephone number, in order to expedite resolution of any remaining issues and further to expedite passage of the application to issue, if any further comments, questions or suggestions arise in connection with the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 12-0429 and please credit any excess fees to such deposit account.

Respectfully submitted,
LALOS & KEEGAN



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